

IN THE CLAIMS:

The following is a complete listing of the claims, and replaces all earlier versions and listings.

1. (currently amended): A computer-implemented method of interconnection, through a gateway, between a first network of type IEEE 1394 enabling communications between a plurality of HAVi compliant devices and a second network enabling communications between a plurality of devices comprising the steps of:

for each device from the second network,

a) determining a distinct global unique identifier ~~for each device from the second network;~~

b) determining a distinct IEEE 1394 address ~~for each device from the second network; and~~

c) representing each the device from the second network by a HAVI compliant software element associated with the determined global unique identifier and the determined IEEE 1394 address, which software element is hosted by the gateway; and

said method also comprising managing communication between a devices from the first network and a devices from the second network, ~~using for each device from the second network, using the device from the second network's~~ its corresponding software element ~~associated with the global unique identifier and the IEEE 1394 address.~~

2. (currently amended): ~~A~~ The method according to claim 1, wherein the second network enables communications between a plurality of UPnP compliant devices.

3. (currently amended): ~~A~~ The method according to claim 2, wherein the step of determining a global unique identifier comprises the step of generating a global unique identifier.

4. (currently amended): ~~A~~ The method according to claim 2, wherein the step of determining a IEEE 1394 address ~~for each device from the second network~~ comprises a further step of generating a virtual IEEE 1394 address.

5. (currently amended): ~~A~~ The method according to claim 4, wherein the step of generating a virtual IEEE 1394 address comprises a step of generating a bus identifier, representing the second network, according to the standard IEEE 1394.1.

6. (currently amended): ~~A~~ The method according to claim 2, wherein the ~~step of managing management of~~ communication between devices from the first network and devices from the second network ~~comprises the step of is performed by~~ forming a bridge between a first bridge portal connected to the first network and an emulated second bridge portal and ~~the step of~~ managing communication between the emulated second bridge portal and the devices from the second network.

7. (currently amended): ~~A~~ The method according to claim 1, wherein the second network enables communications between a plurality of HAVi compliant devices.

8. (currently amended): ~~A~~ The method according to claim 7, wherein the step of determining a global unique identifier comprises the step of retrieving the global unique identifier of the corresponding HAVi device from the second network.

9. (currently amended): ~~A~~ The method according to claim 7, wherein the step of determining a IEEE1394 address comprises the step of retrieving the IEEE1394 address of the corresponding HA Vi device from the second network.

10. (currently amended): ~~A~~ The method according to claim 7, wherein the ~~step of managing~~ management of communication between devices from the first network and devices from the second network comprises ~~the~~ step of forming a bridge compliant with the IEEE1394.1 standard between a first bridge portal connected to the first network and a second bridge portal connected to the second network.

11. (currently amended): ~~A~~ The method according to claim 1, wherein ~~the~~ step of managing management of communication between a first device from the first network and a second device from the second network includes ~~a~~ step of retrieving, by the first device, the IEEE 1394 address associated to the second device using a discovery and enumeration protocol.

12. (currently amended): ~~A~~ The method according to claim 1, which further ~~comprises~~ ~~includes~~ a further step of managing virtual registers compliant with IEC61883 specification associated with each device from the second network.

13. (currently amended): A computer-implemented method of interconnection, through a gateway, between a first serial bus network enabling transmission of audiovisual data enabling communications between a plurality of devices, compliant with a first standard of interoperability between devices connected to a serial bus network adapted for audiovisual data transmission, and a second network enabling communications between a plurality of devices comprising the steps of:

for each device of the second network,

a) determining a distinct global unique identifier ~~for each device from the second network;~~
b) determining a distinct address compliant with the first serial bus network ~~for each device from the second network; and~~
c) representing each the device from the second network by a software element associated with the determined global unique identifier and address, providing an interface for controlling functions of the device, in conformity with the first standard of interoperability, the software element being hosted by the gateway; and
the method also comprising managing communication between a devices from the first network and a devices from the second network, ~~using for each device from the~~

~~second network, its using the device from the second network's corresponding software element associated with its global unique identifier and its address.~~

14. (currently amended): A computer-implemented gateway enabling the interconnection of a first network of type IEEE 1394 enabling communications between a plurality of HA Vi compliant devices and a second network enabling communications between a plurality of devices, wherein the gateway comprises:

means a unit to determine a distinct global unique identifier for each device from the second network;

means a unit to determine a distinct IEEE 1394 address for each device from the second network;

means a unit to represent each device from the second network by a HAV~~i~~ compliant software element associated with the device's determined global unique identifier and IEEE 1394 address, and to hosted by the software element on the gateway;
and

means a unit to manage communication between a devices from the first network and a devices from the second network, ~~using for each device from the second network, its using the device from the second network's corresponding software element associated with the global unique identifier and the IEEE 1394 address.~~

15. (currently amended): A The gateway according to claim 14, wherein the second network enables communications between a plurality of UPnP compliant devices.

16. (currently amended): ~~A~~ The gateway according to claim 15, wherein the means unit to determine a global unique identifier comprise means a unit to generate a global unique identifier.

17. (currently amended): ~~A~~ The gateway according to claim 15, wherein the means unit to determine a IEEE 1394 address for each device from the second network comprises ~~a further step of a unit for~~ generating a virtual IEEE 1394 address.

18. (currently amended): ~~A~~ The gateway according to claim 17, wherein the ~~step of unit for~~ generating a virtual IEEE 1394 address comprises means to a unit for generating a bus identifier, representing the second network, according to the standard IEEE 1394.1.

19. (currently amended): ~~A~~ The gateway according to claim 15, wherein the means unit to manage communication between ~~a~~ devices from the first network and ~~a~~ devices from the second network comprises means a unit to form a bridge between a first bridge portal connected to the first network and an emulated second bridge portal, and means a unit to manage communication between the emulated second bridge portal and the devices from the second network.

20. (currently amended): ~~A~~ The gateway according to claim 14, wherein the second network enables communications between a plurality of HA[[]]Vi compliant devices.

21. (currently amended): ~~A~~ The gateway according to claim 20, wherein the ~~means unit~~ to determine a global unique identifier comprises ~~means a~~ unit to retrieve the global unique identifier of the corresponding HA VI device from the second network.

22. (currently amended): ~~A~~ The gateway according to claim 20, wherein the ~~means unit~~ to determine a IEEE 1394 address comprises ~~means a~~ unit to retrieve the IEEE1394 address of the corresponding HAVi device from the second network.

23. (currently amended): ~~A~~ The gateway according to claim 20, wherein the ~~means unit~~ to manage communication between devices from the first network and devices from the second network comprise a unit ~~means~~ to form a bridge compliant with the IEEE 1394.1 standard between a first bridge portal connected to the first network and a second bridge portal connected to the second network.

24. (currently amended): ~~A~~ The gateway according to claim 14, wherein the ~~means unit~~ to manage communication between a first device from the first network and a second device from the second network comprises, in the first device, ~~means a~~ unit to

retrieve the IEEE 1394 address associated to the second device using a discovery and enumeration protocol.

25. (currently amended): ~~A~~ The gateway according to claim 14, ~~which comprises~~ comprising a further ~~means~~ unit to manage virtual registers compliant with IEC61883 specification associated with each device from the second network.

26. (currently amended): A computer-implemented gateway enabling the interconnection of a first serial bus network enabling transmission of audiovisual data enabling communications between a plurality of devices, compliant with a first standard of interoperability between devices connected to a serial bus network adapted for audiovisual data transmission, and a second network enabling communications between a plurality of devices, wherein the gateway comprises:

~~means~~ a unit to determine a distinct global unique identifier for each device from the second network;

~~means~~ a unit to determine a distinct address compliant with the first serial bus network for each device from the second network;

~~means~~ a unit to represent each device from the second network by a software element associated with the determined global unique identifier and IEEE 1394 address, providing an interface for controlling functions of the device, in conformity with the first standard of interoperability, and to host the software element being hosted by on the gateway;

~~means a unit to manage communication between a devices from the first network and a devices from the second network, using for each device from the second network, its using the device from the second network's corresponding software element associated with its global unique identifier and its address.~~

27. (canceled).

28. (new): A computer-implemented gateway enabling the interconnection of a first network of type IEEE 1394 enabling communications between a plurality of HAVi compliant devices and a second network enabling communications between a plurality of devices, wherein the gateway comprises:

means for determining a distinct global unique identifier for each device from the second network;

means for determining a distinct IEEE 1394 address for each device from the second network;

means for representing each device from the second network by a HAVi compliant software element associated with the device's determined global unique identifier and IEEE 1394 address, and for hosting the software element on the gateway; and

means for managing communication between a device from the first network and a device from the second network using the device from the second network's corresponding software element.

29. (new): A computer-implemented gateway enabling the interconnection of a first serial bus network enabling transmission of audiovisual data enabling communications between a plurality of devices, compliant with a first standard of interoperability between devices connected to a serial bus network adapted for audiovisual data transmission, and a second network enabling communications between a plurality of devices, wherein the gateway comprises:

means for determining a distinct global unique identifier for each device from the second network;

means for determining a distinct address compliant with the first serial bus network for each device from the second network;

means for representing each device from the second network by a software element associated with the determined global unique identifier and IEEE 1394 address, providing an interface for controlling functions of the device, in conformity with the first standard of interoperability, and for hosting the software element on the gateway;

means for managing communication between a device from the first network and a device from the second network using the device from the second network's corresponding software element.

30. (new): A computer-readable medium storing a program product including code that, when executed on a gateway, is operable to cause the gateway to perform a method of interconnection between a first network of type IEEE 1394 enabling communications between a plurality of HAVi compliant devices and a second network

enabling communications between a plurality of devices comprising:

for each device from the second network:

- a) determining a distinct global unique identifier;
- b) determining a distinct IEEE 1394 address; and
- c) representing the device from the second network by a HAVI compliant software element associated with the determined global unique identifier and the determined IEEE1394 address, which software element is hosted by the gateway; and

the method also comprising managing communication between a device from the first network and a device from the second network using the device from the second network's corresponding software element.

31. (new): A computer-readable medium storing a program product including code that, when executed on a gateway, is operable to cause the gateway to perform a method of interconnection between a first serial bus network enabling transmission of audiovisual data between a plurality of devices, compliant with a first standard of interoperability between devices connected to a serial bus network adapted for audiovisual data transmission, and a second network enabling communications between a plurality of devices comprising:

for each device of the second network:

- a) determining a distinct global unique identifier;
- b) determining a distinct address compliant with the first serial bus network;

and

c) representing the device from the second network by a software element associated with the determined global unique identifier and address, providing an interface for controlling functions of the device, in conformity with the first standard of interoperability, the software element being hosted by the gateway; and

the method also comprising managing communication between a device from the first network and a device from the second network using the device from the second network's corresponding software element.